IN THE CLAIMS:

Please amend claims 5 - 7, 11, 17, 18, 23, 27, 29, 31, 32, 37, and 40.

Please cancel claims 1 - 4, 16, 18, 22, 24, and 28.

1. (Canceled) ~~A method for protecting a target circuit, the method comprising:~~

~~detecting power from a source of power;~~
~~coupling the power to the target circuit in a gradual manner;~~
~~detecting noise components in the power; and~~
~~varying the amount of power delivered to the target circuit in response to the noise component.~~

2. (Canceled) ~~The method of claim 1 wherein the step of coupling includes controlling the conductivity of a transistor device, the transistor device having series connection between the source of power and the target circuit.~~

3. (Canceled) ~~The method of claim 1 wherein the step of coupling includes controlling the conductivity of a transistor device, the transistor device having series connection between the source of power and the target circuit.~~

4. (Canceled) ~~A method for protecting a target circuit, the method comprising:~~

~~detecting power from a source of power;~~
~~coupling the power to the target circuit in a gradual manner;~~
~~detecting when a current supplied to the target circuit exceeds a threshold; and~~
~~decoupling the power in response to detecting that the current supplied to the target circuit exceeds a threshold.~~

5. (Currently amended): A circuit comprising:

a switch configured to couple a target circuit with a source of power;

a first detector configured to <u>be selectively coupled to and decoupled from</u> ~~detect power provided by~~ the source of power, the first detector operatively coupled with the switch, wherein the switch closes responsive to the first detector; and

a second detector configured to detect noise in the power, the second detector operatively coupled to the switch, wherein a conductivity of the switch varies responsive to the second detector~~.~~

wherein the first detector comprises a resistor and a capacitor configured as an RC circuit that is in electrical communication with the source of power,

wherein the switch is a transistor device having a gate terminal coupled to the RC circuit, so that the switch gradually closes as the RC circuit is charged by the source of power.

6. (Currently amended): The circuit of claim 5 wherein the second detector couples between the source of power source and ~~a~~ the gate of the switch.

7. (Currently amended): The circuit of claim 5 further including a positive terminal and a negative terminal, ~~wherein the switch is a transistor device having a gate, a source, and a drain,~~ wherein the second detector comprises:

a bias voltage source;

an operational amplifier having:

an inverting input coupled with the positive terminal and coupled with the bias voltage source;

a non-inverting input coupled with a negative terminal; and

an output coupled to the gate of the switch.

8. (Original): The circuit of claim 7 wherein the output of the operational amplifier couples with the first detector.

9. (Original): The circuit of claim 7 wherein the bias voltage source coupled with the first detector.

10. (Original): The circuit of claim 9 wherein the bias voltage source is a voltage divider.

11. (Currently amended): A circuit comprising:

a switch configured to couple a target circuit with a source of power;

a first detector configured to ~~detect power from a~~be selectively coupled to and decoupled from the source of power, the first detector operatively coupled with the

switch, wherein the switch gradually closes responsive to the first detector being coupled to the source of power; and

a second detector configured to sense current being supplied to the target circuit and to detect when ~~a current supplied to the target circuit~~the current exceeds a threshold, wherein the switch opens responsive to the second detector~~.~~,

wherein the first detector comprises a resistor and a capacitor configured as an RC circuit,

wherein the switch is a transistor device having a gate terminal coupled to the RC circuit,

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wherein the RC circuit is in electrical communication with the source of power so that the switch gradually closes as a result of charging of the RC circuit by the source of power.

12. (Original): The circuit of claim 11 wherein the switch closes at a slower rate than it opens.

13. (Original): The circuit of claim 11 wherein the switch is characterized by having a variable conductance, wherein the switch closes at a slow rate such that its conductance is gradually increased.

14. (Original): The circuit of claim 11 wherein the first detector and the switch are coupled to the positive terminal of the source of power.

15. (Original): The circuit of claim 11 wherein the first detector and the switch are coupled to the negative terminal of the source of power.

16. (Canceled) ~~The circuit of claim 11 wherein the switch comprises a first transistor coupled between the source of power and the target circuit, the first transistor having a control node coupled to the first detector.~~

17. (Currently amended): The circuit of claim ~~16~~ 11 wherein the first transistor is a FET transistor.

18. (Currently amended): The circuit of claim ~~16~~ 11 further comprising a filter, wherein the control node of the first transistor couples to the first detector via the filter.

19. (Original): The circuit of claim 11 wherein the second detector comprises a first op-amp operatively coupled between the first detector and the switch.

20. (Original): The circuit of claim 19 wherein the second detector further comprises a resistor coupled between the first op-amps inputs.

21. (Original): The circuit of claim 19 wherein the second detector further comprises a second power source coupled between one of the first op-amp inputs and the source of power.

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22. (Canceled) ~~The circuit of claim 11 wherein the first detector comprises:~~
~~a second transistor; and~~
~~a capacitor coupled between the conduction nodes of the second transistor~~

23. (Currently amended): A circuit comprising:

a switch configured to couple a target circuit with a source of power;

a first detector configured to be selectively coupled to and decoupled from ~~detect power from~~ the source of power, the first detector operatively coupled with the switch, wherein the switch closes responsive to the first detector; and

a second detector configured to detect when the source of power is decoupled from the target circuit, wherein the switch opens responsive to the second detector;

wherein the first detector comprises a resistor and a capacitor configured as an RC circuit in electrical communication with the source of power,

wherein the switch is a transistor device having a gate terminal coupled to the RC circuit, so that the switch gradually closes as a result of charging of the RC circuit by the source of power.

24. (Canceled) ~~The circuit of claim 23 wherein the switch comprises a first transistor coupled between the source of power and the target circuit, the first transistor having a control node coupled to the first detector.~~

25. (Original): The circuit of claim 23 further comprising a filter, wherein the control node of the first transistor couples to the first detector via the filter.

26. (Original): The circuit of claim 23 wherein the second detector comprises a first op-amp operatively coupled between the first detector and the switch.

27. (Currently amended): A circuit comprising:

a switch configured to couple a target circuit with a source of power;

a first detector configured to <u>be selectively coupled to and decoupled from</u> ~~detect power from~~ the source of power, the first detector operatively coupled with the switch, wherein the switch closes responsive to the first detector; and

a second detector configured to detect a voltage change from a non-zero voltage towards a zero voltage, wherein the switch opens responsive to the second detector~~.~~,

<u>wherein the first detector comprises a resistor and a capacitor configured as an RC circuit in electrical communication with the source of power,</u>

<u>wherein the switch is a transistor device having a gate terminal coupled to the RC circuit, so that the switch gradually closes as a result of charging of the RC circuit by the source of power.</u>

28. (Canceled) ~~The circuit of claim 27 wherein the switch comprises a first transistor coupled between the source of power and the target circuit, the first transistor having a control node coupled to the first detector.~~

29. (Currently amended): The circuit of claim ~~28~~ <u>27</u> further comprising a filter, wherein the control node of the first transistor couples to the first detector via the filter.

30. (Original): The circuit of claim 27 wherein the second detector comprises a first op-amp operatively coupled between the first detector and the switch.

31. (Currently amended): A circuit for coupling a power source to a device comprising:

first circuit means for detecting a connection event wherein a connection is made between ~~the first circuit~~a device and ~~the~~ a power source, the first circuit means configured to be selectively coupled to and decoupled from the power source;

second circuit means, responsive to the first circuit means, for varying the amount of power from the power source that is applied to the device, the second circuit means comprising an RC circuit coupled so as to be charged by the power source, wherein a voltage developed by the RC circuit is provided to the first circuit means, the voltage being less than the voltage of the power source;

third circuit means for filtering electrical noise originating from the power source to produce a filtered signal; and

fourth circuit means for producing a control signal responsive to the filtered signal,

the second circuit means further being responsive to the control signal so that the amount of power that is applied to the device varies in response to the electrical noise.

32. (Currently amended): A circuit for coupling a power source to an electronic device comprising:

first circuit means for detecting a connection event wherein a connection is made between ~~the first circuit~~an electronic device and ~~the~~ a power source, the first circuit means comprising an RC circuit coupled in a manner to be charged by the power source, the first circuit means configured to be selectively coupled to and decoupled from the power source;

second circuit means, responsive to the first circuit means, for coupling power from the power source to the electronic device, wherein a voltage developed by the RC circuit is provided to the second circuit means such ~~so~~ that power is applied to the electronic device in a gradual manner;

third circuit means for detecting an overcurrent event wherein the electronic device draws current from the power source exceeding a predetermined level of current; and

fourth circuit means for reducing the amount of power that is applied to the electronic device in response to the third means.

33. (Original): The circuit of claim 32 further including fifth circuit means for producing a signal indicative of an occurrence of the overcurrent event.

34. (Original): The circuit of claim 32 further including a first connection terminal and a second power connection terminal, the power connection terminals suitable for connection to the power source, the third circuit means operable to detect an overcurrent event by monitoring electrical activity on only one of the first and second connection terminals.

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35. (Original): The circuit of claim 32 further including fifth circuit means for detecting electrical noise in the power, the second circuit means further being responsive to the fifth circuit means by varying the amount of power that is applied to the electronic device.

36. (Original): The circuit of claim 32 wherein the fourth circuit means is effective for decoupling the power supply from the electronic device.

37. (Currently amended): A circuit for coupling a power source to a device comprising:

first circuit means for detecting a connection event wherein a connection is made between ~~the first circuit~~a device and ~~the~~ a power source, the first circuit means comprising an RC circuit configured to be charged by the power source, the first circuit means configured to be selectively coupled to and decoupled from the power source;

second circuit means, responsive to the first circuit means, for coupling power from the power source to the device, the second circuit means operable to vary the amount of power that is applied to the device, wherein a voltage developed by the RC circuit is provided to the second circuit means;

third circuit means for detecting a change in an electrical parameter of the second circuit means indicative of a disconnection between the circuit and the power source;

fourth circuit means for decoupling the power source from the device in response to the third means.

38. (Original): The method of claim 37 further including fifth circuit means for producing a signal indicative of an occurrence of the disconnection between the circuit and the power source.

39. (Original): The circuit of claim 37 further including fifth circuit means for detecting electrical noise in the power source, the second circuit means further being responsive to the fifth circuit means by varying the amount of power that is applied to the device.

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40. (Currently amended): A circuit for coupling a power source to a device comprising:

first circuit means for detecting a connection event wherein a connection is made between ~~the circuit~~a device and ~~the~~ a power source, the first circuit means comprising an RC circuit configured to be charged by the power source, the first circuit means configured to be selectively coupled to and decoupled from the power source;

second circuit means, responsive to the first circuit means, for providing a varying amount of power from the power source to the device, wherein a voltage developed by the RC circuit is provided to the second circuit means, the voltage being less than the voltage of the power source;

third circuit means for detecting when the device draws current from the power source exceeding a predetermined level of current;

fourth circuit means for decoupling the power source from the device in response to the third means;

fifth circuit means for detecting a change in an electrical parameter of the second circuit means indicative of a disconnection between the circuit and the power source; and

sixth circuit means for decoupling the power source from the device in response to the fifth means.

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41. (Original): The circuit of claim 40 further including seventh circuit means for detecting electrical noise in the power, the second circuit means further being responsive to the seventh circuit means by varying the amount of power that is applied to the device.